



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,317	02/21/2002	Kuniaki Kurihara	09792909-5351	8182
26263 7590 05/01/2008 SONNENSCHN NATH & ROSENTHAL LLP P.O. BOX 061080 WACKER DRIVE STATION, SEARS TOWER CHICAGO, IL 60606-1080				
EXAMINER ADHAMI MOHAMMAD SAJD				
ART UNIT		PAPER NUMBER		
2616				
MAIL DATE		DELIVERY MODE		
05/01/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/080,317

**Applicant(s)**

KURIHARA, KUNIAKI

**Examiner**

MOHAMMAD S. ADHAMI

**Art Unit**

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,5-7,9-11 and 13-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-7,9-11,13-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

- Applicant's amendment filed 2/12/2008 is acknowledged.
- Claims 1,6,7, and 9-11 have been amended.
- Claims 3,4,8, and 12 are cancelled.
- Claims 1,2,5-7,9-11, and 13-16 are pending.
- Applicant's response and amendment with respect to the rejection of claims 1,2,5-7,9-11, and 13-16 under 35 USC 112 2nd paragraph is noted and the rejections are withdrawn.

### ***Claim Objections***

1. Claims 11,14, and 15 objected to because of the following informalities: The preamble of claim 11 should be "a computer-readable medium encoded with a computer-readable program". In claims 14 and 15, "when that the" should be "when the." Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 9-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 9-11, it is unclear what information fragments are referred to in the limitation *said information fragments exceeds a reference time value and that the transmission of said information fragments is cancelled*. Does “information fragments” refer to the information fragments of the information packet immediately prior to the information fragments of the other information packet?

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1,2,6,7, and 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jalali in view of Tseung (US 5,109,384) and Ghosh (US 6,678,523).

#### **Re claims 1,6, and 7:**

Jalali discloses *dividing information into a set of information units* (Fig.2 and Para.42 Forward link signals are divided into time slots and each slot is divided into two half-slots - where first and second information are respectively divided into first and second sets of information units).

Jalali discloses *transmitting first information to a transmission party* (Fig.1 ref.106).

Jalali further discloses *receiving information about the reception of the first information from the transmission party* (Fig.1 ref.104 and Fig.3 ref.312).

Jalali discloses *clocking the time from when each unit of the first set of information units is transmitted* (Para.[0052] “the maximum number time for which a packet can remain in the first-time queue after the packet has been transmitted” where being able to know the time a packet has remained in a queue after being transmitted entails clocking the time for when the packet was first transmitted).

Jalali further discloses *determining whether or not the clocked time exceeds a reference value* (Fig.3 ref.316 and Para.[0052] “the parameters comprise, e.g., the maximum number of times a packet can be retransmitted and the maximum number time for which a packet can remain in the first-time queue after the packet has been transmitted”).

Jalali further discloses *transmitting a second set of information units when it is determined that the clocked time exceeds a reference value* (Fig.3 ref.318 where the first information is no longer transmitted, so the transmission of second information will begin).

Jalali does not explicitly disclose *setting a flag indicating that the clocked time exceeds the reference value*.

Tseung discloses *setting a flag indicating that the clocked time exceeds the reference value* (Col.22 lines 62 and 63 “The timer would expire (the ACK timer expired on network B flag 866 would be set) and ” where the timer expires after a “reference value” is exceeded).

Jalali and Tseung are analogous because they all pertain to data transmission.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Jalali to include setting a flag indicating the clocked time has exceeded a reference value as taught by Tseung in order to make appropriate data processing decisions regarding the communication of multi-packet messages.

Jalali does not explicitly disclose *a flag indicating the first set of information is cancelled and writing a flag into the second information that is transmitted*.

Ghosh discloses *a flag indicating the first set of information is cancelled and writing a flag into the second information that is transmitted* (Abstract “the MS will transmit the next frame to all BTSs that successfully decoded the frame with the flush bit set to instruct the BTSs to erase the previous frame” – where setting the flush bit in a frame is writing a flag and erasing the previous frame indicates the previous set of information is cancelled).

Jalali and Ghosh are analogous because they both pertain to data transmission.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Jalali to include a flag indicating cancelled information units and writing a flag into the second information that is transmitted as taught

by Ghosh in order to efficiently use memory and to notify the receiver of the condition represented by the flag.

**Re claim 2:**

Jalali further discloses *using packets for transmission* (Abstract A transmitting terminal transmits signals in a form of packets to a receiving terminal).

**Re claims 13-15:**

Jalali further discloses *retransmitting a unit of the first information units when it is determined that the clocked time does not exceed a reference value* (Fig.3 ref.320).

Jalali further discloses retransmitting the unit of the first information units when the transmission party indicates the unit of the first set of information has not been received (Fig.3 ref.312 where a NAK indicates the first information has not been received).

**Re claim 16:**

Jalali discloses *the information units including clock information for creating a time to reproduce the information unit* (Fig.4 ref. 420, where the sequence number is "clock information" and the information unit should be reproduce in sequence).

3. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jalali in view of Tseung and Ghosh as applied to claim 2 above, and further in view of Kamihara (US 6,854,020).

**Re claim 5:**

As discussed above, Jalali meets all the limitations of the parent claims.

Jalali does not explicitly disclose *clearing the flag when all of the second set of information units forming the second information are transmitted*.

Kamihara discloses *clearing the flag when all of the second set of information units forming the second information are transmitted* (Col3 lines 55 and 56 “clearing the transmission-in-progress flag on condition that packet transmission has ended” where after the transmission is complete, a flag is cleared).

Jalali and Kamihara are analogous because they all pertain to data transmission.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Jalali to include clearing the flag after all the second packets are transmitted as taught by Kamihara in order to make appropriate data processing decisions regarding the communication of multi-packet messages.

4. Claims 9-11 (as best understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton (US 6,392,993) in view of Ghosh and Tseung.

**Re claims 9-11:**

Hamilton discloses *dividing information packets into information fragments* (Fig.7 reference 124 where the “information packets” are messages and the “information packets” are the packets that make up the messages).



Hamilton further discloses *receiving information fragments via a network and an indication about the reception of the information fragment* (Figure 8 reference 148 and Table 3).

Hamilton further discloses *storing each of the information fragments received* (Figure 8 reference 150 and Col.19 lines 32-37 "Since messages may have to be buffered until all packets are received, embodiments within the scope of this invention may comprise means for storing received packets until an entire message is received...such means is illustrated by message receive list 150").

Hamilton further discloses *assembling the stored information fragments to reproduce the information packet* (Figure 8 reference 148 and Col.19 lines 29 and 30 "Normal processing of receiver 148 comprises assembling packets of a message").

Hamilton further discloses *determining whether or not a predetermined flag is contained in the information fragments received* (Col.30 lines 64-66 "decision block 230 and step 232 which detected whether the ACK request flag is set" or Col.12 lines 50-52 "By examining the packet sequence number and, perhaps, the end of the message flag").

Hamilton further discloses *deleting the stored information fragment that corresponds to the information packet, which is prior to another information packet whose corresponding information fragments are determined to contain flags* (Col.24 lines 6-9 "If the entire message has not been received before the timer expires, then message life timer 158 may delete the partially received

message" where as disclosed by the applicant in Figure 4, the flag is set when a packet that is to be transmitted, is processed after a reference time. So the "information fragment" deleted is the packet corresponding to a message that was not entirely sent before the reference time. This is the same as deleting a partial message, which is composed of "information fragments", that is not received within the reference time. The information fragments corresponding to another information packet can also contain flags (Table 3)).

Hamilton discloses buffering packets *until* they are all received (Col.19 lines 32 and 33 "messages may have to be buffered until all packets are received"). However, Hamilton does not explicitly disclose *a deletion means and a flag indicating the first set of information is cancelled*.

Ghosh discloses *deleting the information fragment that is stored when the information fragments are assembled to reproduce the information packets* (Col.5 lines 44-45 Since one of the BTSs decoded the frame successfully, both BTSs will erase the frame from memory – where a decoded frame has been assembled, so the frame erased is one that has been assembled).

Ghosh further discloses *a flag indicating the first set of information is cancelled* (Abstract "the MS will transmit the next frame to all BTSs that successfully decoded the frame with the flush bit set to instruct the BTSs to erase the previous frame" – where setting the flush bit in a frame is writing a flag and erasing the previous frame indicates the previous set of information is cancelled).

Hamilton and Ghosh are analogous because they both pertain to data communications.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hamilton as discussed above as taught by Ghosh in order to efficiently utilize memory and remove information that is not used.

Hamilton does not explicitly disclose *setting a flag indicating that the clocked time exceeds the reference value*.

Tseung discloses *setting a flag indicating that the clocked time exceeds the reference value* (Col.22 lines 62 and 63 "The timer would expire (the ACK timer expired on network B flag 866 would be set) and " where the timer expires after a "reference value" is exceeded).

Hamilton and Tseung are analogous because they all pertain to data transmission.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hamilton to include setting a flag indicating the clocked time has exceeded a reference value as taught by Tseung in order to make appropriate data processing decisions regarding the communication of multi-packet messages.

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1,6,7, and 9-11 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MOHAMMAD S. ADHAMI whose telephone number is (571)272-8615. The examiner can normally be reached on Monday-Friday 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Firmin Backer can be reached on (571)272-6703. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. S. A./  
4/24/2008

/FIRMIN BACKER/  
Supervisory Patent Examiner, Art Unit 2616